

CLAIMS

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a,
5 1. Liquid crystal display with plurality of pixels comprised of two plane substrates (1),
(2) with electric conductive layers deposited on the faced to each other sides of the substrates
(1), (2), covered with aligning layers (4) and with liquid crystal filling the space between the
substrates (1), (2), having deflecting elements (5), (6) and, if required, black matrix, 112. 2
characterized in that

at least on one substrate deflecting elements (5), (6) are dielectric and are displaced over
10 electric conductive layers along the perimeter of each pixel.

2. Display according to claim 1, characterized in that, deflecting dielectric elements
(5), (6) are made of material with the resistivity equal, or exceeding the resistivity of the liquid
crystal.

3. Display according to claims 1-2, characterized in that, deflecting dielectric elements
15 (5), (6) are additionally displaced within the area of each pixel.

4. Display according to claims 1 or 2, characterized in that, the said black matrix is
made of deflecting dielectric elements (5), (6).

5. Display according to claims 1-4, characterized in that, deflecting dielectric elements
(5), (6) have the height in the interval 0.1-1 value of the liquid crystal thickness.

20 6. Display according to claim 1, characterized in that, deflecting dielectric elements
(5), (6) are displaced on both substrates (1), (2) over the electric conductive layers.

7. Display according to claim 6, characterized in that, deflecting dielectric elements
(5), (6) which are displaced over the electric conductive layers are made of different materials.

8. Display according to claims 1-7, characterized in that, deflecting dielectric elements
25 (5), (6) have varying height.

9. Liquid crystal display with plurality of pixels comprised of two plane substrates (1),
(2) with electric conductive layers deposited on the faced to each other sides of the substrates
(1), (2), covered with aligning layers (4) and with liquid crystal filling the space between the
substrates (1), (2), having deflecting elements (5), (6) and, if required, black matrix,
30 characterized in that

at least on one substrate deflecting elements are dielectric and placed over the electric
conductive layer and the area between them is filled with a supplementary coating (7).

10. Display according to claim 9, characterized in that, on the top of the supplementary coating (7) additional conductive layer is deposited.

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5 11. Display according to claims 9 or 10, characterized in that, over the said dielectric deflecting elements (5), (6) and supplementary coating (7) additional layer is formed made of the material of the said deflecting dielectric elements (5), (6).

12. Display according to claim 9, characterized in that, the said dielectric deflecting elements (5), (6) are made of material with the resistivity equal or exceeding that of the said liquid crystal.

10 13. Display according to claims 9-12, characterized in that, deflecting dielectric elements (5), (6) are additionally displaced within the area of each pixel.

14. Display according to claims 9 or 13, characterized in that, the said black matrix is made of deflecting dielectric elements (5), (6).

15 15. Display according to claims 9-14, characterized in that, deflecting dielectric elements (5), (6) have the height exceeding 0.1 of the liquid crystal thickness.

16. Display according to claim 9, characterized in that, deflecting dielectric elements (5), (6) are displaced on both substrates (1), (2) over the electric conductive layers.

17. Display according to claim 16, characterized in that, deflecting dielectric elements (5), (6) which are displaced over the electric conductive layers are made of different materials.

20 18. Display according to claims 9-16, characterized in that, deflecting dielectric elements (5), (6) have varying height.

19. Display according to claim 9, characterized in that, the supplementary coating (7) is made of the same material as the substrate.

25 20. Display according to claim 19, characterized in that, on the top of the supplementary coating (7), which is made of the same material as the substrate, electric conductive layer is deposited.

30 21. The method for making liquid crystal display with plurality of pixels comprised of depositing electric conductive and aligning layers on the faced to each other sides of two plane substrates, of subsequent filling liquid crystal in the space between the substrates, of forming deflecting elements and, if required, color filters and black matrix, characterized in that at least on one substrate deflecting elements are made dielectric and are displaced over the electric conductive layer.

22. The method according to claim 21, characterized in that, deflecting dielectric elements are made of material with the resistivity equal to or exceeding that of the liquid crystal.

23. The method according to claims 21 or 22, characterized in that, deflecting dielectric elements are formed on both substrates.

24. The method according to claim 23, characterized in that, deflecting dielectric elements are formed of different materials

25. The method according to claims 21-24, characterized in that, the area between the deflecting dielectric elements is filled with supplementary coating.

26. The method according to claim 25, characterized in that, on the top of the supplementary coating additional electric conductive layer is deposited.

27. The method according to claims 24 or 25, characterized in that, on the top of the supplementary coating additional layer made of the material of the deflecting dielectric elements is deposited.

28. The method according to claim 21, characterized in that, the supplementary coating is made of the same material as the substrate.

29. The method according to claim 25, characterized in that, on the top of the supplementary coating electric conductive layer is deposited.

30. The method according to claims 21-23, characterized in that, the black matrix is made of the material of the deflecting dielectric elements.

31. The method according to claim 21, characterized in that, deflecting dielectric elements are formed with the height exceeding 0.1 of the liquid crystal thickness.

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